

Claims:

1 1. An environmental load aggregation apparatus for
2 aggregating environmental load information in life stages of a
3 product, said environmental load aggregation apparatus
4 comprising:

5 a part information storage device which stores part
6 information on various parts or the product, said part information
7 including information on other parts having a parent-child
8 relationship to the various parts;

9 a process information storage device, which stores process
10 information on a process relating to production of a part or the
11 product, said process information being defined by a supplier of
12 the part or the product and comprising information on
13 environmental load items affecting environment in said process,
14 information on a basic process corresponding to said process
15 among basic processes that are defined by a predetermined rule
16 and that relate to the production of the product, and information
17 on a part to which said process is tied;

18 a stage definition information storage device, which stores
19 stage definition information on a life stage of the product, the
20 stage definition information being defined by the supplier of the
21 product and comprising information on a basic process assigned to
22 said life stage; and

23 an environmental load information aggregation device,
24 which receives designation of the product and aggregates
25 environmental load information in life stages of the designated

26 product; wherein

27 said environmental load information aggregation device
28 performs: processing for specifying each component part of the
29 designated product, using the part information of each part, which
30 is stored in said part information storage device; processing for
31 searching the process information storage device for process
32 information on a process tied to each of the specified parts;
33 processing for classifying retrieved pieces of process information
34 according to a life stage to which a basic process included in each
35 piece of process information is assigned, using the stage definition
36 information of the supplier of the designated product, which is
37 stored in said stage definition information storage device; and
38 processing for aggregating the environmental load information
39 included in the retrieved pieces of process information, for each
40 life stage.

1 2. An environmental load aggregation apparatus according to
2 Claim 1 further comprising:

3 a basic process storage device, which stores basic process
4 information on each basic process relating to production of the
5 product; and

6 a stage definition information registration device, which
7 registers stage definition information in said stage definition
8 information storage device; wherein

9 said stage definition information registration device
10 performs: processing for outputting basic process information on
11 each basic process stored in said basic process information storage
12 device, and receiving selection of a basic process assigned to a life

13 stage of the product; and processing for registering stage
14 definition information that has information on the basic process
15 assigned to said life stage in said stage definition information
16 storage device.

1 3. An environmental load aggregation apparatus according to
2 Claim 1 further comprising:

3 a basic process storage device, which stores basic process
4 information on each basic process relating to production of the
5 product;

6 an environmental load item storage device, which stores,
7 for each basic process, environmental load items to be considered
8 in each basic process; and

9 a process information registration device, which registers
10 process information in said process information storage device;
11 wherein

12 said process information registration device performs:
13 processing for outputting part information of each part stored in
14 said part information storage device, and receiving selection of a
15 part to which a process to be registered is tied; processing for
16 outputting information on each basic process stored in said basic
17 process information storage device, and receiving selection of a
18 basic process that is associated with the process to be registered;
19 processing for outputting environmental load items stored in
20 association with the selected basic process in said environmental
21 load item storage device, and receiving input of information on
22 said environmental load items, said information being set to the
23 process to be registered; and processing for registering process

24 information that includes the selected part, the selected basic
25 process, and the inputted information on the environmental load
26 items, in said process information storage device.

1 4. An environmental load aggregation apparatus according to
2 one of Claims 1 - 3 further comprising:

3 a part configuration information display device, which
4 receives designation of the product, and displays the part
5 information of each component part of the designated product,
6 which is stored in said part information storage device, and the
7 process information of a process tied to any component part of
8 said designated product, which is stored in said process
9 information storage device; wherein

10 each piece of process information stored in said process
11 information storage device has a disclosure level indicating
12 whether information on environmental load items should be
13 disclosed or not; and

14 when said part configuration information display device
15 displays the process information of a process tied to a component
16 part of said designated product, the part configuration
17 information display device displays the information on the
18 environmental load items included in said process information, as
19 is, when a disclosure level included in said process information
20 permits disclosure of the information on the environmental load
21 items, and displays a life cycle assessment value calculated from
22 the information on the environmental load items included in said
23 process information, when said disclosure level does not permit
24 disclosure.

1 5. An environmental load aggregation method, in which a
2 computer aggregates environmental load information in life stages
3 of a product, wherein:

4 a storage unit of said computer stores: part information,
5 which is information on various parts or the product and includes
6 information on other parts having a parent-child relationship to
7 the various parts; process information, which is information on a
8 process relating to production of a part or the product, said
9 process information being defined by a supplier of the part or the
10 product and comprising information on environmental load items
11 affecting environment in said process, information on a basic
12 process corresponding to said process among basic processes that
13 are defined according to a predetermined rule and relate to the
14 production of the product, and information on a part to which said
15 process is tied; and stage definition information, which is
16 information on a life stage of the product, the stage definition
17 information being defined by the supplier of the product and
18 comprising information on a basic process assigned to said life
19 stage; and

20 an operation unit of said computer performs:

21 a step of specifying each component part of a designated
22 product, using the part information of each part, which is stored
23 in said part information storage device;

24 a step of searching the process information storage device
25 for process information on a process tied to each of the specified
26 parts;

27 a step of classifying retrieved pieces of process information
28 according to life stage to which a basic process included in each

29 piece of process information is assigned, using the stage definition
30 information of the supplier of the designated product, which is
31 stored in said stage definition information storage device; and
32 a step of aggregating the environmental load information
33 included in the retrieved pieces of process information, for each
34 life stage.

1 6. An environmental load aggregation method according to
2 Claim 5, wherein each piece of process information stored in said
3 storage unit has a disclosure level indicating whether information
4 on environmental load items should be disclosed or not;
5 said operation unit further performing:
6 a step of receiving designation of the product, and
7 displaying the part information of each component part of the
8 designated product and the process information of a process tied
9 to any component part of said designated part, with said part
10 information and said process information being stored in said
11 storage unit; and
12 a step of displaying, wherein, when the process
13 information of a process tied to a component part of said
14 designated product is displayed, the information on the
15 environmental load items included in said process information is
16 displayed, as is, when the disclosure level included in said process
17 information permits disclosure of the information on the
18 environmental load items, and a life cycle assessment value
19 calculated from the information on the environmental load items,
20 which is included in said process information, is displayed when
21 said disclosure level does not permit the disclosure.

1 7. A computer-readable program, wherein a storage unit of a
2 computer stores: part information, which is information on
3 various parts or a product and includes information on other parts
4 having a parent-child relationship to the various parts; process
5 information, which is information on a process relating to
6 production of a part or the product, said process information being
7 defined by a supplier of the part or the product and comprising
8 information on environmental load items affecting environment in
9 said process, information on a basic process corresponding to said
10 process among basic processes that are defined by a
11 predetermined rule and relate to the production of the product,
12 and information on a part to which said process is tied; and stage
13 definition information, which is information on a life stage of the
14 product, the stage definition information being defined by the
15 supplier of the product and comprising information on a basic
16 process assigned to said life stage; wherein
17 said program realizes, in an operation unit of said
18 computer:
19 a function of specifying each component part of a
20 designated product, using the part information of each part, which
21 is stored in said part information storage device;
22 a function of searching the process information storage
23 device for process information on a process tied to each of the
24 specified parts;
25 a function of classifying retrieved pieces of process
26 information according to a life stage to which a basic process
27 included in each piece of process information is assigned, using
28 the stage definition information of the supplier of the designated

29 product, which is stored in said stage definition information
30 storage device; and
31 a function of aggregating the environmental load
32 information included in the retrieved pieces of process
33 information, for each life stage.

1 8. A computer-readable program according to Claim 7,
2 wherein:
3 each piece of process information stored in said storage
4 unit has a disclosure level indicating whether information on
5 environmental load items should be disclosed or not;
6 said program further realizes, in said operation unit:
7 a function of receiving designation of the product, and
8 displaying the part information of each component part of the
9 designated product and the process information of a process tied
10 to any component part of said designated part, with said part
11 information and said process information being stored in said
12 storage unit; and
13 said function of displaying displays, when the process
14 information of a process tied to a component part of said
15 designated product is displayed, the information on the
16 environmental load items included in said process information, as
17 is, when the disclosure level included in said process information
18 permits disclosure of the information on the environmental load
19 items, and displays a life cycle assessment value calculated from
20 the information on the environmental load items, which is
21 included in said process information, when said disclosure level
22 does not permit the disclosure.

1 9. An environmental load aggregation apparatus for
2 aggregating environmental load information in life stages of a
3 product, said environmental load aggregation apparatus
4 comprising:

5 a part information storage device, which stores part
6 information on various parts or the product, said part information
7 including information on other parts having a parent-child
8 relationship to the various parts;

9 a process information storage device, which stores process
10 information comprising information on a basic process relating to
11 production of the product, which is defined by a predetermined
12 rule, and information on a part to which said process information
13 is tied;

14 an environmental load information storage device, which
15 stores environmental load information comprising information on
16 a basic process and information environmental load items
17 affecting environment in said basic process;

18 a life stage definition information storage device, which
19 stores stage definition information comprising information on
20 basic processes assigned to each life stage of the product; and

21 an environmental load information aggregation device,
22 which receives designation of the product and aggregates
23 environmental load information in life stages of the designated
24 product; wherein

25 said environmental load information aggregation device
26 performs: processing for specifying each component part of the
27 designated product, using the part information of each part, which
28 is stored in said part information storage device; processing for

29 searching the process information storage device for process
30 information on a process tied to each of the specified parts;
31 processing for classifying retrieved pieces of process information
32 according to a life stage to which a basic process included in each
33 piece of process information is assigned, using the stage definition
34 information of the designated product, which is stored in said
35 stage definition information storage device; and processing for
36 reading environmental load information including information on
37 a basic process included in each of the retrieved pieces of process
38 information, from said environmental load information storage
39 device, and aggregating the environmental load information
40 included in the read pieces of process information, for each life
41 stage.

1 10. An environmental load aggregation apparatus according to
2 Claim 9, further comprising:
3 an environmental load information registration device,
4 which performs: processing for receiving information on
5 environmental load items together with designation of a life
6 stage; and processing for specifying basic processes constituting
7 the designated life stage and for registering environmental load
8 information that includes the specified basic processes and the
9 received information on the environmental load items to said
10 environmental load information storage device.

1 11. An environmental load aggregation method, in which a
2 computer aggregates environmental load information in life stage
3 of a product, wherein:

4 a storage unit of said computer stores: part information,
5 which is information on various parts or the product and includes
6 information on other parts having a parent-child relationship to
7 the various parts;

8 process information, which comprises information on a basic
9 process relating to production of the product, said basic process
10 being defined according to a predetermined rule, and information
11 on a part tied to said basic process; environmental load
12 information comprising information on a basic process and
13 information on environmental load items affecting environment in
14 said basic process; and stage definition information comprising
15 information on a basic process assigned to each life stage of the
16 product; and

17 an operation unit of said computer performs:

18 a step of receiving designation of the product through an
19 input unit;

20 a step of specifying parts constituting the designated
21 product, using the part information of each part, which is stored
22 in said storage unit;

23 a step of searching said storage unit for each piece of
24 process information tied to each of said specified parts;

25 a step of classifying the retrieved pieces of process
26 information according to a life stage to which a basic process
27 included in each piece of process information is assigned, using
28 the stage definition information of said designated product, which
29 is stored in said storage unit; and

30 a step of reading environmental load information including
31 information on a basic process included in each retrieved piece of

32 process information, and aggregating information on
33 environmental load items included in the read pieces of
34 environmental load information, for each life stage.

12. A computer readable program, wherein:

a storage unit of a computer stores: part information, which is information on various parts or a product and includes information on other parts having a parent-child relationship to the various parts; process information comprising information on a basic process that is defined according to a predetermined rule and relates to production of the product, and information on a part tied to said basic process; environmental load information, which comprises information on a basic process and information on environmental load items affecting environment in said basic process; and stage definition information, which comprises information on basic processes assigned to each life stage of the product; and

said program realizes, in an operation unit of said computer:

a function of receiving designation of the product through an input unit;

a function of specifying parts constituting the designated product, using the part information of each part, which is stored in said storage unit;

a function of searching said storage unit for each piece of process information tied to each of said specified parts;

a function of classifying the retrieved pieces of process information according to a life stage to which a basic process

included in each piece of process information is assigned, using the stage definition information of said designated product, which is stored in said storage unit; and

a function of reading environmental load information including information on a basic process included in each retrieved piece of process information, and aggregating information on environmental load items included in the read pieces of environmental load information, for each life stage.